

SELECTIVE SILICON-ON- INSULATOR ISOLATION STRUCTURE AND METHOD

Abstract

A first aspect of the present invention is a method of forming an isolation structure including: (a) providing a semiconductor substrate; (b) forming a buried N-doped region in the substrate; (c) forming a vertical trench in the substrate, the trench extending into the N-doped region; (d) removing the N-doped region to form a lateral trench communicating with and extending perpendicular to the vertical trench; and (e) at least partially filling the lateral trench and filling the vertical trench with one or more insulating materials.